

WHAT IS CLAIMED IS:

1. A tank for receiving a carbon- and hydrogen-containing fluid for supplying a fuel cell system with an operating medium, comprising:

5 a tank having an inlet and an outlet for the fluid;  
at least one straining means for cleaning the fluid arranged between the inlet and the outlet.

10 2. A tank according to Claim 1, wherein the straining means comprises at least one zone having regions of different permeability for constituents of the carbon- and hydrogen-containing fluid.

15 3. A tank according to Claim 1, wherein the straining means comprises a composite body having at least two zones of different permeability for constituents of the carbon- and hydrogen-containing fluid.

20 4. A tank according to Claim 2, wherein the at least one zone is an adsorber.

5. A tank according to Claim 2, wherein the at least one zone is a particle filter.

25 6. A tank according to Claim 2, wherein the at least one zone is a chemical converter for at least one constituent of the fluid.

30 7. A tank according to Claim 2, wherein the at least one zone comprises a mixture of adsorber materials.

8. A tank according to Claim 1, wherein the straining material comprises at least one adsorber material selected from the group consisting of activated carbon, copper oxide, a

zeolitic molecular sieve, a metal oxide, and an ion exchange resin.

9. A tank according to Claim 2, wherein the at least one zone comprises a membrane that is semipermeable at least for one constituent of the fluid.

10. A tank according to Claim 1, wherein the straining means comprises a molecular sieve.

11. A tank according to claim 2, wherein the at least one zone is a ceramic body.

12. A tank according to Claim 1, wherein the straining means is exchangeable.

13. A tank according to Claim 1, further comprising a filling-level indicator for the straining means.

14. A method for cleaning a carbon- and hydrogen-containing fluid comprising feeding the fluid through a tank having at least one straining means for cleaning the fluid arranged between an inlet and an outlet.

15. A method according to Claim 14, wherein the carbon- and hydrogen-containing fluid is methanol.

16. A method according to Claim 14, wherein the carbon- and hydrogen-containing fluid is dimethyl ether.

17. A fuel cell vehicle comprising a tank according to Claim 1.

18. A filling station for fuel cell vehicles comprising a tank according to Claim 1.